

What is claimed is:

[Claim 1] 1. A machining system having a machining envelope, the machining system comprising:

 a housing defining at least a portion of the machining envelope;
 a hopper having a top surface defining an opening; and
 a seal disposed between the housing and the top surface;
 wherein the hopper is configured to receive particulates when positioned below the machining envelope.

[Claim 2] 2. The machining system of claim 1 further comprising a lift platform adapted to raise the hopper to position the seal adjacent to the housing and the top surface.

[Claim 3] 3. The machining system of claim 1 wherein the hopper further comprises a bottom panel and a set of wheels disposed proximate the bottom panel.

[Claim 4] 4. The machining system of claim 1 wherein the hopper further comprises a bottom panel and at least one channel adapted to receive a forklift fork disposed proximate the bottom panel.

[Claim 5] 5. The machining system of claim 1 further comprising a funnel adapted to direct particulates into the hopper disposed on the housing above the hopper and below the machining envelope.

[Claim 6] 6. The machining system of claim 5 wherein the funnel includes a blower adapted to blow particulates into the hopper.

[Claim 7] 7. The machining system of claim 6 wherein the hopper further comprises a vent and a filter adapted to allow pressurized air to exit the hopper disposed proximate the vent.

[Claim 8] 8. The machining system of claim 6 wherein the housing further comprises a housing vent disposed below the funnel and a filter adapted to allow pressurized air to exit the hopper and prevent particulates from exiting the hopper disposed proximate the housing vent.

[Claim 9] 9. A machining system having a cutting tool adapted to engage a workpiece and a housing comprising:

an upper housing portion adapted to receive the cutting tool and workpiece and defining a machining envelope; and

a lower housing portion defining a chip hopper adapted to receive chips generated by the cutting tool in the machining envelope;

wherein the housing is configured to be moved away from the cutting tool and workpiece to facilitate removal of chips from the chip hopper.

[Claim 10] 10. The machining system of claim 9 wherein the upper housing portion further comprises a first panel having a first opening configured to allow the cutting tool to be positioned in the housing and a second panel having a second opening configured to allow the workpiece to be positioned in the housing.

[Claim 11] 11. The machining system of claim 10 further comprising first and second flaps disposed proximate the first and second openings, respectively, the first and second flaps being adapted to cover the first and second openings when the cutting tool and workpiece are positioned outside the housing.

[Claim 12] 12. The machining system of claim 9 wherein the lower housing portion includes a bottom panel having at least one door configured to open to facilitate removal of chips from the lower housing portion.

[Claim 13] 13. The machining system of claim 9 wherein the lower housing portion includes a bottom panel and at least one channel adapted to receive a forklift fork disposed on the bottom panel.

[Claim 14] 14. The machining system of claim 9 wherein the upper housing portion includes a funnel disposed below the machining envelope, the funnel having an aperture configured to allow chips to pass from the machining envelope to the chip hopper.

[Claim 15] 15. The machining system of claim 14 further comprising a blower adapted to force chips into the chip hopper disposed in the aperture.

[Claim 16] 16. The machining system of claim 15 wherein the housing includes a vent having a filter adapted to permit air to exit the housing and prevent chips from exiting the housing.

[Claim 17] 17. A machining system comprising:

 a housing including:

 an upper portion defining a machining envelope;

 a lower portion disposed proximate the upper portion, the lower portion having an access port; and

 a mating portion disposed proximate the upper and lower portions defining a first aperture, the mating portion having a bottom surface; and

 a chip hopper adapted to be inserted through the access port into the lower portion, the chip hopper including:

 a top surface defining a second aperture; and

 a seal disposed on the top surface;

 wherein the seal is adapted to engage the bottom surface of the mating portion to prevent particulates from exiting the housing.

[Claim 18] 18. The machining system of claim 17 wherein the lower portion further comprises a second access port adapted to permit removal of the chip hopper disposed opposite the first access port.

[Claim 19] 19. The machining system of claim 17 wherein the lower portion further comprises a lift mechanism adapted to raise the chip hopper to engage the seal with the bottom surface.

[Claim 20] 20. The machining system of claim 17 wherein the chip hopper further comprises a bottom panel having a set of wheels and at least one channel adapted to receive a forklift fork.